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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,420	11/17/2003	Michael D. Halleck		2273

23121 7590 03/10/2005

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EXAMINER

JONES, SCOTT E

ART UNIT PAPER NUMBER

3713

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/714,420	Applicant(s) HALLECK ET AL.	
	Examiner Scott E. Jones	Art Unit 3713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-33 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02192004</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 10, 11, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. In each of claims 10, 11, and 31, the recited claim language is unclear because the frequency values are given without standard scientific units, such as cycles per second.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-15 and 18-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knecht (U.S. Pub. No. 2001/0031666) in view of Wilson (U.S. 6,139,422).

Knecht discloses an apparatus and method for analyzing a golf swing. In particular two or more rows of lights are used as an extension that is attached to the club shaft or hosel of any golf club via a connector. When a golfer swings an outfitted club, the analyzer provides trails of lights that indicate the swing path of the club and the club angle of the club face at the point in which the golfer impacts the ball. Knecht further discloses other components as well, such as,

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battery power, microprocessors, accelerometers, LCD readout, etc. Knecht additionally discloses:

Regarding Claims 1, 9, 12, 18, 23, 24, and 32:

- first and second spaced display elements positioned so that each appears similarly located relative to an associated golf club head face and with each providing at least an apparently consistent light emanation during a golf stroke (Figures 1-4 and 10 and Paragraphs 9-11, 31, 34, and 41-42); and
- an elongated light emitting display positioned between said first and second spaced display elements (Figures 1-4 and 10 and Paragraphs 9-11, 31, 34, and 41-42).

Regarding Claim 2:

- wherein said elongated light emitting display comprises a plurality of light emitting elements positioned so that each appears substantially equidistant from the associated golf club head face (Figures 1-4 and 10 and Paragraphs 9-11, 31, 34, and 41-42).

Regarding Claim 3:

- wherein said first and second spaced display elements are operatively associated with said control means (Figures 1-4 and 10 and Paragraphs 9-11, 31, 33-34, 41-42, 45, and 47-49).

Regarding Claim 4:

- wherein said first and second display elements are passive elements (Figures 1-4 and 10 and Paragraphs 9-11, 31, 33-34, 41-42, 45, and 47-49).

Regarding Claim 5:

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- mounting means for releasably mounting at least said first and second display elements and said elongated light emitting display at a shaft of the associated golf club (Figures 1-5, 10, and 12A & B, and Paragraphs 50-57).

Regarding Claim 6:

- wherein said mounting means includes a shock absorber at said mounting means positionable adjacent to the shaft (Figures 1-5, 10, and 12A & B, and Paragraphs 50-57).

Regarding Claim 7:

- wherein said control means includes a microprocessor and driver connected with said elongated light emitting display (Figures 1-4 and 10 and Paragraphs 9-11, 31, 33-34, 41-42, 45, and 47-49).

Regarding Claim 13:

- further comprising a velocity switch operatively associated with said controller for sensing use of the golf club and activating said controller in response thereto (Figures 1-4 and 10 and Paragraphs 9-11, 31, 33-34, 41-42, 45, and 47-49).

Regarding Claims 14, 15, and 30:

- wherein said controller includes a microprocessor, said apparatus further comprising an accelerometer operatively associated with said controller to detect club head acceleration, speed, direction, angle and impact force information and store said information at said microprocessor (Figures 1-4 and 10 and Paragraphs 9-11, 31, 33-34, 41-42, 45, and 47-49).

Regarding Claim 19:

- wherein said elongated single element light emitting source includes a fiber optic transmitter connected with an elongated fiber optic element (Paragraph 31).

Although Knecht discloses a microprocessor for controlling subject golf swing analyzer and providing two different color lights to help distinguish the alignment of the golf club at ball impact, Knecht seems to lack explicitly disclosing:

Regarding Claims 1, 9, 18, 20, 21, 22, 24, 25, and 30:

- control means operatively associated with said elongated light emitting display for activating and deactivating said elongated light emitting display to provide several short intervals of light emission from said elongated light emitting display during the golf stroke.

Regarding Claims 8, 15, and 30:

- further comprising a second set of light emitting elements selectively positioned relative to said plurality of light emitting elements, said control means operatively associated with said second set of light emitting elements for activating and deactivating said second set of light emitting elements to provide several short intervals of activation of said second set light emitting elements during the golf stroke, said short intervals of activation of said second set of light emitting elements being timewise offset relative to said short intervals of light emission from said elongated light emitting display.

Regarding Claims 10, 27, and 28:

- wherein said selection means and said controller are configured for minimum activated/deactivated interval frequency of about $\frac{1}{2}$.

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Regarding Claims 11, 27, 28, and 31:

- wherein said selection means and said controller are configured for variation of activated/deactivated interval frequency in a range between about $\frac{1}{2}$ to at least about $\frac{1}{35}$.

Regarding Claims 26, 27, 28, and 29:

- said method further comprises the step of selecting period and frequency of said intervals.

Wilson, like Knecht, teaches of a golf swing learning aid that provides instant feedback to a golfer on the characteristics of their swing of a golf club. Wilson and Knecht are analogous art. The device can be integral to a golf club head or mounted in close proximity to the golf club head including a first and second light source (different color LEDs). This device provides feedback in the form of two dashed streaks of light persisting in the golfer's vision providing feedback to the golfer on the direction of the swing, orientation of the club head, and club head speed relative to some pre-set value. Wilson teaches:

Regarding Claims 1, 9, 18, 20, 21, 22, 24, 25, and 30:

- control means operatively associated with said elongated light emitting display for activating and deactivating said elongated light emitting display to provide several short intervals of light emission from said elongated light emitting display during the golf stroke (Abstract, Figures 5a-6d, Column 1, lines 43-67, Column 3, lines 5-51, Column 4, line 66-Column 5, line 7, Column 5, line 61-Column 7, line 45, and Claims 1-4, and 20-28).

Regarding Claims 8, 15, and 30:

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- further comprising a second set of light emitting elements selectively positioned relative to said plurality of light emitting elements, said control means operatively associated with said second set of light emitting elements for activating and deactivating said second set of light emitting elements to provide several short intervals of activation of said second set light emitting elements during the golf stroke, said short intervals of activation of said second set of light emitting elements being timewise offset relative to said short intervals of light emission from said elongated light emitting display (Abstract, Figures 5a-6d, Column 1, lines 43-67, Column 3, lines 5-51, Column 4, line 66-Column 5, line 7, Column 5, line 61-Column 7, line 45, and Claims 1-4, and 20-28).

Regarding Claims 10, 27, and 28:

- wherein said selection means and said controller are configured for minimum activated/deactivated interval frequency of about $\frac{1}{2}$ (Abstract, Figures 5a-6d, Column 1, lines 43-67, Column 3, lines 5-51, Column 4, line 66-Column 5, line 7, Column 5, line 61-Column 7, line 45, and Claims 1-4, and 20-28).

Regarding Claims 11, 27, 28, and 31:

- wherein said selection means and said controller are configured for variation of activated/deactivated interval frequency in a range between about $\frac{1}{2}$ to at least about $\frac{1}{35}$ (Abstract, Figures 5a-6d, Column 1, lines 43-67, Column 3, lines 5-51, Column 4, line 66-Column 5, line 7, Column 5, line 61-Column 7, line 45, and Claims 1-4, and 20-28).

Regarding Claims 26, 27, 28, and 29:

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- said method further comprises the step of selecting period and frequency of said intervals (Abstract, Figures 5a-6d, Column 1, lines 43-67, Column 3, lines 5-51, Column 4, line 66-Column 5, line 7, Column 5, line 61-Column 7, line 45, and Claims 1-4, and 20-28).

It would have been obvious at the time of Applicant's invention to modify Knecht's golf swing analyzer to utilize Wilson's first and second set of lights having a first and second turn on/turn off cycle pattern in order to provide feedback to the golfer on the direction of the swing, orientation of the club head, and club head speed. One would be motivated to do so because this would result in two dashed streaks of light persisting in a golfer's vision to provide instant feedback to the golfer relating to the swing allowing for even the color blind to readily ascertain the results.

6. Claims 16 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knecht (U.S. Pub. No. 2001/0031666) in view of Wilson (U.S. 6,139,422) and further in view of Campos et al. (U.S. Pub. No. 2004/0243196).

Knecht in view of Wilson teaches that as discussed above regarding claims 1-15 and 18-32. Knecht in view of Wilson seems to lack explicitly teaching:

Regarding Claims 16 and 33:

- further comprising a muscle stimulation unit trigger operatively associated with said controller.

Campos et al., like Knecht and Wilson, teaches of a golf learning aid and is therefore analogous art. Campos et al. teaches of a developmental instrument that includes hardware and

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software for stimulating a muscle. In the case of a golf club, a muscle of a user may be stimulated by the instrument as the golfer practices a swing. Campos et al. additionally teaches :

Regarding Claims 16 and 33:

- further comprising a muscle stimulation unit trigger operatively associated with said controller (Abstract, Paragraphs 23, 100, and 110).

It would have been obvious at the time of Applicant's invention to incorporate the developmental instrument Campos in the combination of Knecht and Wilson. One would be motivated to do so because combining muscle stimulation with the act of practicing the movement of the golf swing has a synergistic effect of training the muscle as it builds strength effectively enhancing the golf aid device obtained in the Knecht and Wilson combination.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knecht (U.S. Pub. No. 2001/0031666) in view of Wilson (U.S. 6,139,422) and further in view of McGinty et al. (U.S. Pub. No. 2003/0032494).

Knecht in view of Wilson teaches that as discussed above regarding claims 1-15 and 18-32. Knecht in view of Wilson seems to lack explicitly teaching:

Regarding Claim 17:

- comprising a light intensity sensor operatively associated with said controller for sensing ambient light conditions, said controller configured to adjust light output from said elements responsive thereto.

McGinty et al., like Knecht and Wilson, teaches of a golf club training apparatus and is therefore analogous art. McGinty et al. teaches of a golf club training apparatus having impact

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sensors and display to show where on the club face the ball was struck for providing immediate feedback by electronic means to the golfer. McGinty et al. teaches:

Regarding Claim 17:

- comprising a light intensity sensor operatively associated with said controller for sensing ambient light conditions, said controller configured to adjust light output from said elements responsive thereto (Paragraph 29).

It would have been obvious at the time of Applicant's invention to incorporate the ambient light intensity sensor of McGinty in the combination of Knecht and Wilson in order to ensure the light intensity of the LED's are sufficient to provide instant feedback to the golfer. One would be motivated to do so such that a golfer could practice their swing at any time of the day and still be able to obtain clear and instant feedback.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Wilhlem '850, Pace '610, and Gedney et al. '483 disclose golf swing aid and evaluation systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott E. Jones whose telephone number is (571) 272-4438. The examiner can normally be reached on Monday - Thursday, 6:30 A.M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott E. Jones
Examiner
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A handwritten signature in black ink, appearing to read "Scott E. Jones", written in a cursive style.

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